

REMARKS

Applicants thank the Examiner for the thorough consideration given the present Application. Claims 1-8 are pending in the present application. Claim 1 is an independent claim. By this response, claims 1-7 are amended and claim 8 is added.

Claim Rejections – 35 U.S.C. § 112

Claims 3 and 4 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite. This rejection is respectfully traversed.

The Office Action states that there is insufficient antecedent basis in claim 2 for the limitations of claims 3 and 4. As amended, claim 2 states that “the powder dispenser is constructed and disposed such that access to the power dispenser from outside the casing does not affect the pressure conditions inside the casing.” As amended, claim 3 states that “a column of powder in the powder dispenser acts as a pressure barrier between the inside of the casing and the environment outside the casing.” Applicants therefore respectfully submit that the relationship between the powder dispenser and the powder contained therein with respect to maintaining a pressure difference between the inside and the outside of the casing is apparent. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Claim Rejections – 35 U.S.C. § 102 - Feygin

Claims 1-3 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,637,175 to Feygin et al. (hereafter “Feygin”). Insofar as it pertains to the presently pending claims, this rejection is respectfully traversed.

Feygin teaches a system and method of laminated object manufacturing (LOM) that fuses powdered material into successive, contoured layers of an object, allowing for the rapid manufacturing of complex, contoured objects. (Col. 5, lines 20-50).

Claim 1

As amended, independent claim 1 describes an LOM manufacturing system where “the powder dispenser is directly accessible from outside the casing for refill of powder material while production is in progress.”

While Feygin does disclose a recycling pipe that feeds unused powder back into the powder dispenser during production (Fig. 2; Col. 23, lines 35-42), Feygin does not teach or suggest that additional powder may be introduced into the system during a production process. Applicants therefore submit that Feygin does not teach or suggest that “the powder dispenser is directly accessible from outside the casing for refill of powder material while production is in progress” as required by independent claim 1.

Claims 2 and 3

Applicants respectfully submit that claims 2 and 3 are allowable at least by virtue of their dependency from independent claim 1. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Claim Rejections – 35 U.S.C. § 102 – Forderhase

Claims 1, 2, and 5-7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,252,264 to Forderhase et al. (hereafter “Forderhase”). Insofar as it pertains to the presently pending claims, this rejection is respectfully traversed.

Forderhase teaches an LOM manufacturing system that employs multiple powder cartridges to accelerate production processing by enabling cartridge exchange during production. (Col. 11, lines 1-14). Forderhase requires that the chamber be sealed to isolate it from the outside environment during cartridge exchange. Processing may continue from an installed, non-empty cartridge while a new cartridge is installed and made accessible to the powder piston assembly inside the chamber. (Col. 12, lines 20-40).

Claim 1

As amended, independent claim 1 describes an LOM manufacturing system where “the powder dispenser is directly accessible from outside the casing for refill of powder material while production is in progress.”

While Forderhase discloses a system whereby additional powder may be introduced into the chamber during a production process, Forderhase requires that the chamber be sealed and the powder delivery portion being refilled be deactivated while its associated cartridge is removed, refilled, and replaced. (Col. 11, line 38-40; Col. 12, lines 21-29). Applicants respectfully submit that this is a very different teaching than direct access to an operating powder dispenser from outside the casing. Components of Forderhase’s system may be sealed off from the casing and thereby removed or attached during production, but no component of Forderhase’s powder delivery system is directly accessible from outside the casing during a production process. Applicants therefore respectfully submit that the powder refill operation of Forderhase does teach or suggest that “the powder dispenser is directly accessible from outside the casing for refill of powder material while production is in progress” as required by independent claim 1.

Claims 2, and 5-7

Applicants respectfully submit that claims 2 and 5-7 are allowable at least by virtue of their dependency from independent claim 1. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Claim Rejections – 35 U.S.C. § 103

Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Feygin. Insofar as it pertains to the presently pending claim, this rejection is respectfully traversed.

Applicants respectfully submit that claim 4 is allowable at least by virtue of its dependency from independent claim 1. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Conclusion

For at least the foregoing amendments and remarks, Applicants respectfully submit that all pending claims are allowable.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Naphtali Y. Matlis, (Reg. No. 61,592), at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§ 1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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